

# Bifrost-build

From confusion to harmony.



和

# Initial state of the Bifrost



Bad

- No fixed environment.
- Dynamic dependencies.
- Closed.
- Not much of version control.

# A first step



## Bifrost 6.1

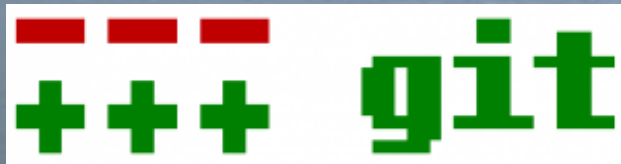
### Good

- Statically linked binaries.
- First stab at build instructions.

### Bad

- No fixed environment.
- Closed.
- Versions and dependencies still out of control.

# Final evolution!



## Bifrost X

- Statically linked binaries.
- Fixed environment.
  - uclibc miniroot
  - clean environment before each build
- Open: [github.com/jelaas/bifrost-build](https://github.com/jelaas/bifrost-build)
- Full control of versions and dependencies.
  - sourcecode
  - build versions
- Repeatable & predictable.
  
- There is even some documentation.

# What does it look like?

Build.sh

```
#!/bin/bash
```

```
SRCVER=openssh-5.5p1  
PKG=$SRCVER-1 # with build version
```

```
pkg_install zlib-1.2.5-1 || exit 2  
pkg_install tcp_wrappers-7.6-1 || exit 2  
pkg_install openssl-0.9.8n-2 || exit 2
```

```
cd $CDIR/$SRCVER  
libtool_fix-1  
patch -p1 < $PKGDIR/openssh-5.2p1-bifrost.pat
```

```
$PKGDIR/B-configure-1 --prefix=/usr --with-tcp-wrappers  
--without-pam --with-md5-passwords --  
sysconfdir=/etc/ssh --without-bsd-auth --  
without-kerberos5 --without-pam --without-osfsia --  
without-skey --without-rand-helper --without-stackprotect  
--without-sectok --without  
-openc --without-selinux || exit 1
```

Fetch-source.sh

```
#!/bin/bash
```

```
SRC=openssh-5.5p1.tar.gz  
DST=/var/spool/src/$SRC
```

```
[ -s "$DST" ] || wget -O $DST ftp://ftp.openbsd.  
org/pub/OpenBSD/OpenSSH/portable/$SRC
```

# Rules!

Just two rules must be followed:

1. Any change of the package definition must be done in a new build version.  
This includes the Build.sh script, sourcecode, patches, dependencies etc.

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2. No cheating!



# Are we there yet?





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## Soon!

A runnable test-build of a complete Bifrost installation exists. There are no show-stoppers left (known at least).